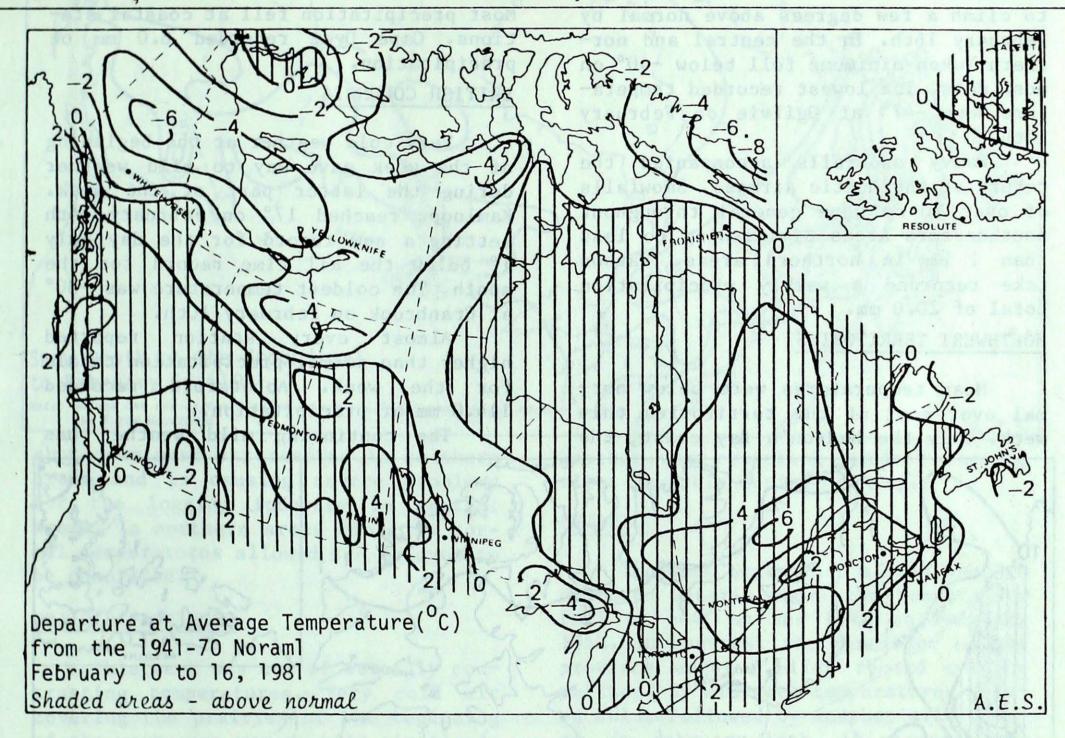


FEBRUARY 20, 1981

(Aussi disponible en français)

VOL.3 NO.7



WEATHER HIGHLIGHTS FOR THE PERIOD - FEBRUARY 10 TO 16 1981

Winter storm batters the East and mild air returns to the West

On February 11th to 12th a storm moved through eastern areas of the country and pushed temperatures to record levels. Many high temperature records were set for this month. Mild air and rain combined to decimate the snow-cover over Ontario and Québec. Gale force winds combined with the mild air to cause flooding and power disruptions in the Maritimes.

A short lived cold outbreak in the West was replaced by mild air during mid period and temperatures began to reach record breaking levels once again.

Temperatures ranged from 17° at Kamloops, British Columbia to -49° at Shepherd Bay, N.W.T. The highest weekly precipitation total, 114.0 mm was recorded at Abbotsford, B.C.

NOTE: The data shown in this publication are based on unverified reports from approximately 225

Canadian and 115 northern United States Synoptic stations.

YUKON

The Arctic high pressure system took control of the Yukon early in the week. The warmest temperature of the week, 0.0, was recorded at Haines Junction on February 10th. Maximum temperatures were generally 5° to 10° below seasonal values during the week except at Watson Lake where readings managed to climb a few degrees above normal by February 16th. In the central and northern Yukon minimums fell below -40° on most days. The lowest recorded temperature was -47° at Ogilvie on February 13th.

Heavy snowfalls accompanied the return of the Arctic airmass. Snowfalls of over 20 cm were general throughout southeastern areas diminishing to less than 1 cm in northern areas. Watson Lake recorded a weekly precipitation total of 20.0 mm.

NORTHWEST TERRITORIES

Mean temperatures were below normal over most of the territories this week. Only the Hudson's Bay coast, the Beaufort Sea coast, southern Baffin Island and southern Ellesmere Island recorded above normal mean temperatures. The temperature ranged from a maximum of -9° at Fort Smith on February 14th to a minimum of -49° at Shepherd Bay on February 11th.

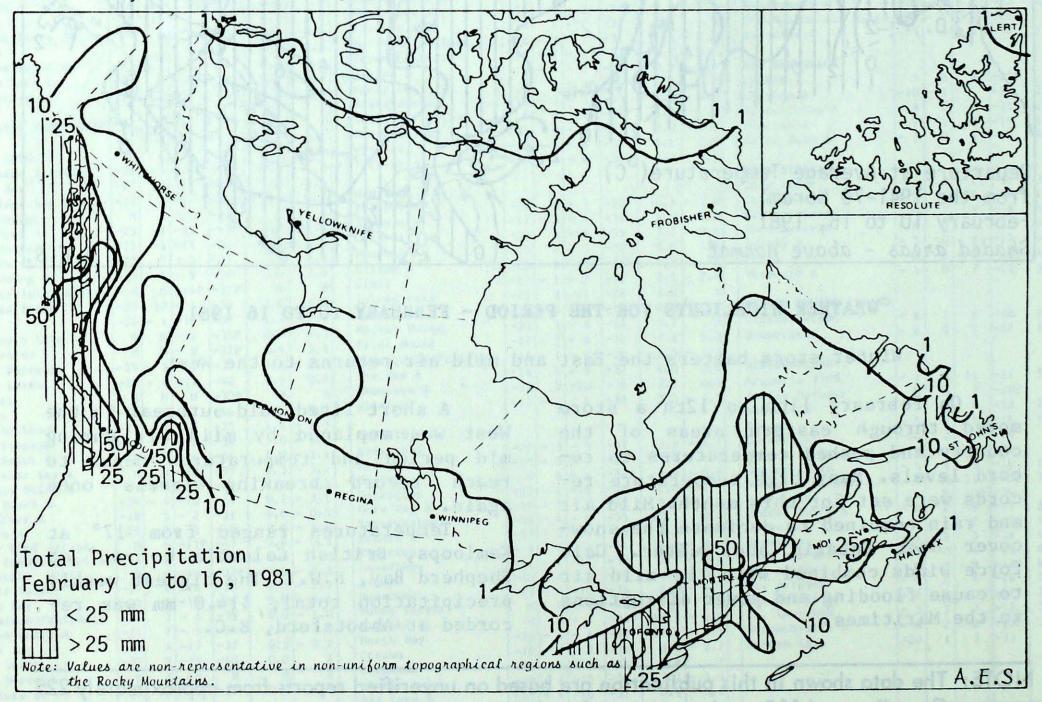
As is to be expected from the cold dry air over the north, most precipitation totals were at or close to zero. Most precipitation fell at coastal stations. Cape Dyer recorded 8.0 mm of precipitation.

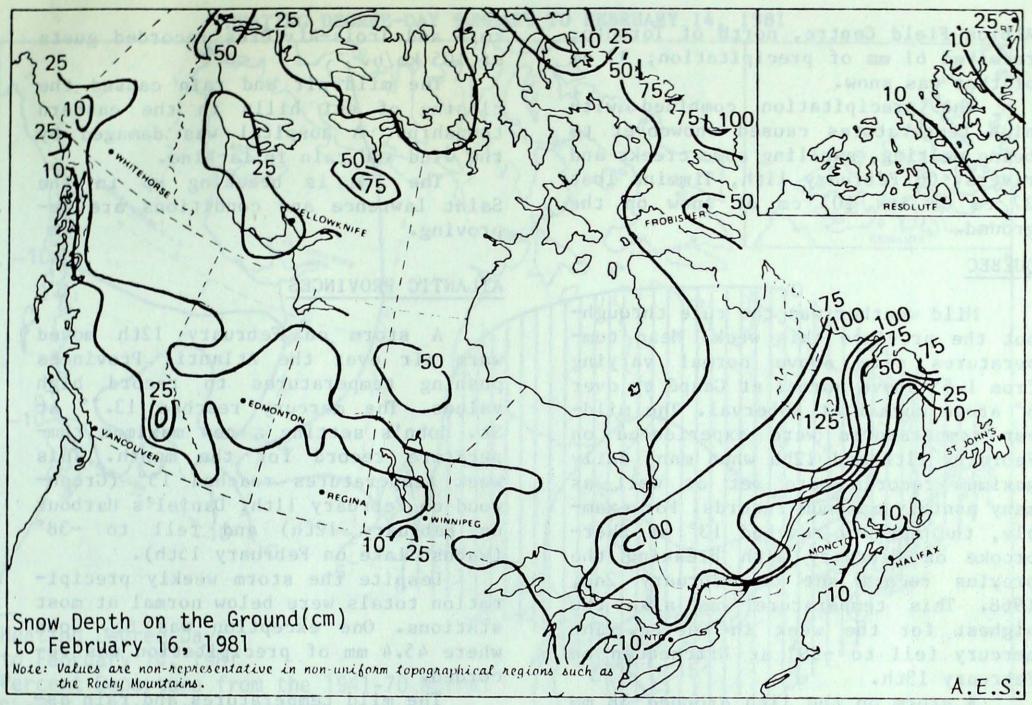
BRITISH COLUMBIA

Very cold weather at the beginning of the week gave way to mild weather during the latter part of the week. Kamloops reached 17° on February 16th setting a new record for the day only 1° below the all time record for the month. The coldest temperature was -30° at Cranbrook on February 10th.

Almost every station reported higher than normal precipitation totals for the week. Abbotsford recorded 114.0 mm of precipitation.

The continuing mild weather has





shut down most ski resorts in southern areas and is causing severe problems for the logging industry in central areas. In northern areas close to normal temperatures allowed ice bridges to be completed.

PRAIRIE PROVINCES

This week was one of strongly contrasting temperatures. Very cold air covering the prairies at the beginning of the week gave way as mild air flooded all areas except the extreme north. Numerous maximum temperature records were broken by week's end, some by large margins. The mercury reached 12° at Rocky Mountain House on February 14th. The temperature fell to -47° at Cree Lake on February 11th.

Despite the influx of warm air little precipitation was received at most stations. The highest weekly total, 9.6 mm, was recorded at Peace River.

Snowcover is once again beginning to disappear and snowdepths are well below normal. In Alberta the mild weather was rendering outdoor skating rinks unusable during the day.

ONTARIO

The week began with a cold snap in northern Ontario where the temperature fell to -44° at Red Lake on February 11th. In contrast the remainder of the province enjoyed mild, record setting weather. By mid-week temperatures turned cold, followed by another mild period. On February 16th, 19 separate records were established, some by wide margins. (9° at Geraldton breaking the old 1971 record of 0°). The mercury reached 10° at Timmins on the 15th and at Atikokan and Lansdowne House on the 16th.

On February 10th a major storm moved into southern Ontario causing school closures and havoc on the high-ways. Precipitation began as snow then changed to rain by mid to late afternoon. Some precipitation readings in the south were: Muskoka with 32.6 mm, London with 35.0 mm, Toronto with 29.2 mm, and Peterborough with 43.1 mm.

Albion Field Centre, north of Toronto, received 61 mm of precipitation; 33 cm of that was snow.

The precipitation combined with high temperatures caused snowcover to being melting, swelling some creeks and rivers. On February 11th, Timmins lost 27 cm of its 103 cm of snow on the ground.

QUÉBEC

Mild weather was the rule throughout the province this week. Mean temperatures were above normal varying from 1.5° above normal at Gaspé to over 6° above normal at Roberval. The mildest temperatures were experienced on February 11th and 12th when many daily maximum records were set as well as many monthly maximum records. For example, the mercury reached 13° at Sherbrooke on February 11th breaking the previus record set on February 2nd, 1968. This temperature was also the highest for the week in Québec. The mercury fell to -39° at Nitchequan on February 15th.

A storm on the 11th dropped 38 mm of rain of Ste-Agathe and Trois-Rivières establishing a new record for liquid precipitation in the first two weeks of February. Ste-Agathe recorded a total weekly precipitation (rain and snow) of 85.4 mm.

Natashquan reported wind gusts of 130 km/h in the afternoon of February 12th. During the night of February 11th to 12th Gaspé recorded gusts of 110

entres foldstad blackings

km/h and Trois-Rivières recorded gusts of 105 km/h.

The mild air and rain caused the closing of ski hills in the eastern townships. A hospital was damaged by the wind and rain in Lachine.

The ice is breaking up in Saint Lawrence and conditions are improving.

ATLANTIC PROVINCES

A storm on February 12th moved warm air over the Atlantic Provinces pushing temperatures to record high values. The mercury reached 13.7° at St. John's setting a new maximum temperature record for the month. This week temperatures reached 15° (Greenwood on February 11th, Daniel's Harbour on February 12th) and fell to -38° (Wabush Lake on February 15th).

Despite the storm weekly precipitation totals were below normal at most stations. One exception was St. John where 45.4 mm of precipitation was recorded.

The mild temperatures and rain associated with the storm caused extensive flooding in several areas of Nova Scotia. Gale force winds grounded a freighter near St. John and caused numerous power outages.

A high pressure system following the storm on February 13th set new all time high pressure records of over 105.1 kPa at several stations in the Maritimes.

CLIMATIC PERSPECTIVES

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Assistant Editor: Technical Staff: Graphics and Layout: Word Processing:

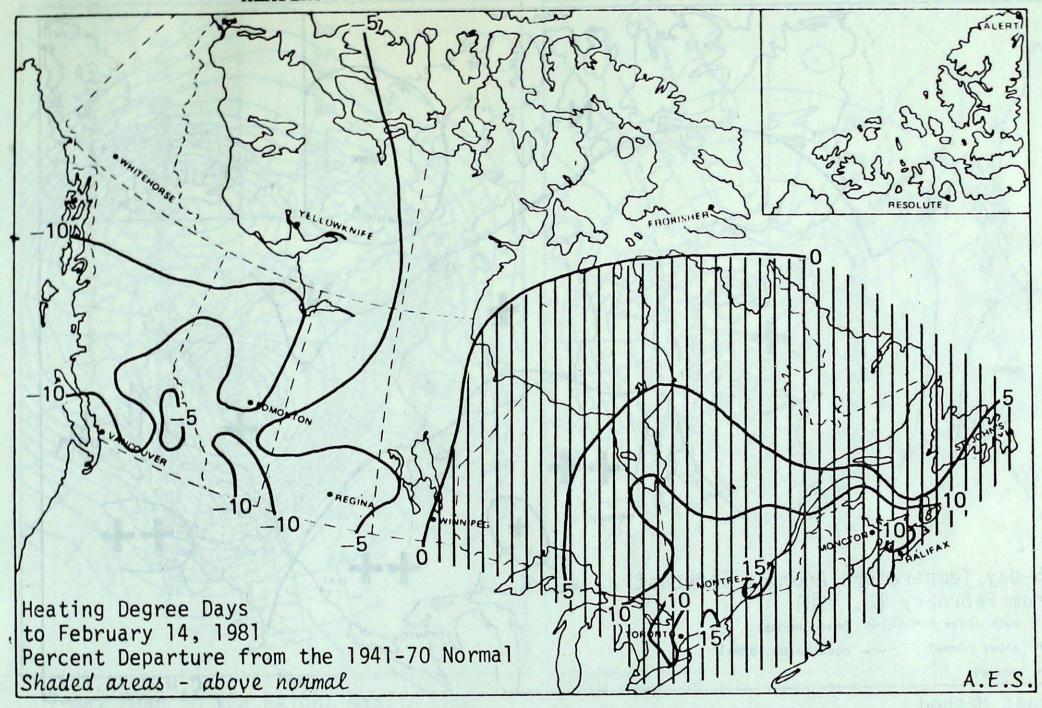
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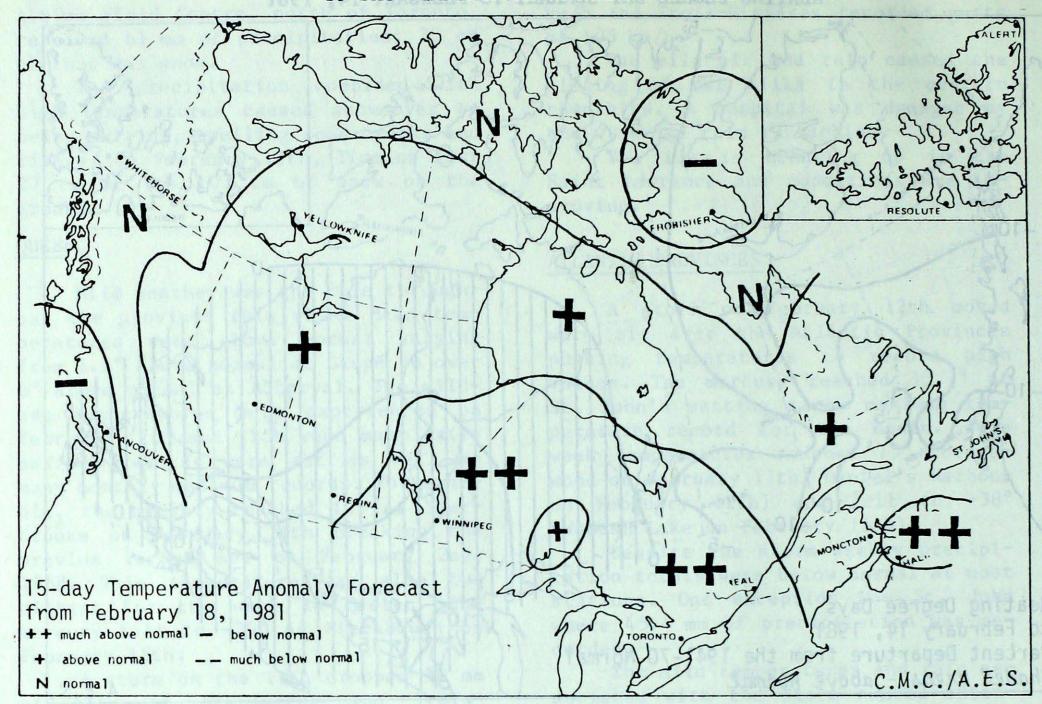
HEATING DEGREE-DAY SUMMARY TO FEBRUARY 14, 1981



COOK TEXT	MONTHLY	MONTHLY DIFF.	SEASONAL	SEASONAL	SEASONAL
	CUMULATIVE	FROM 1941-70	TOTAL	DIFF. FROM	PERCENT
STATION	TOTAL	NORMAL		1941-70 NORMAL	OF NORMAL
Resolute	681.0	-47.0	7377.0	-247.0	97
Inuvik	593.5	-90.5	5895.0	-512.0	92
Whitehorse	400.0	-64.0	4280.0	-332.0	93
Vancouver Int'l A	215.5	16.5	1798.0	-117.0	94
Edmonton Mun A	415.5	3.5	3320.0	-396.0	89
Calgary Int'l A	365.0	-12.0	3049.5	-404.5	88
Regina	514.5	43.5	3661.0	-227.0	94
Winnipeg Int'l A	523.0	30.0	3857.0	-9.0	100
Thunder Bay	519.5	65.5	3820.5	147.5	104
Windsor	347.5	32.5	2571.5	257.5	111
Toronto Int'l A	362.0	17.0	2930.0	344.0	113
Ottawa Int'l A	370.5	-28.5	3430.5	386.5	113
Montreal Int'l A	354.5	-41.5	3414.5	515.5	118
Quebec	395.5	-26.5	3721.0	470.0	114
Saint John, N.B.	336.5	-37.5	3216.5	300.5	110
Halifax	298.5	-23.5	2727.5	322.5	113
Charlottetown	324.5	-44.5	3039.5	306.5	111
St. John's, Nfld.	302.5	-25.5	2930.0	184.0	107

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15 DAY TEMPERATURE ANOMALY FORECAST



Forecast Method

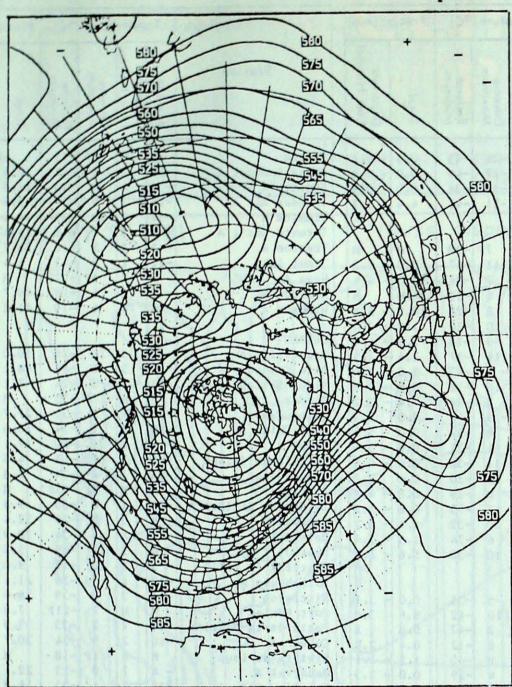
Analogue technique based on point prediction at 70 Canadian stations.

Temperature Scale

Each temperature class is designed to contain 20% of the historically observed 15 day means pertinent to specific location and time of year:

Station	Current Tempera	ture Anomaly Forecast
Whitehorse	Near Normal	Within 1.4° of Normal
Victoria	Below Normal	From 0.4° to 1.5° below Normal
Vancouver	Below Normal	From 0.5° to 1.6° below Normal
Edmonton	Above Normal	From 1.2° to 4.2° above Normal
Regina	Above Normal	From 1.2° to 4.1° above Normal
Winnipeg	Much Above Normal	More than 3.7° above Normal
Thunder Bay	Above Normal	From 0.9° to 3.0° above Normal
Toronto	Much Above Normal	More than 2.3° above Normal
Ottawa	Much Above Normal	More than 2.6° above Normal
Montreal	Much Above Normal	More than 2.5° above Normal
Quebec	Much Above Normal	More than 2.8° above Normal
Fredericton	Above Normal	From 0.8° to 2.8° above Normal
Halifax	Above Normal	From 0.6° to 2.0° above Normal
Charlottetown	Much Above Normal	More than 2.4° above Normal
St. John's	Above Normal	From 0.6° to 2.1° above Normal
Goose Bay	Above Normal	From 1.2° to 4.2° above Normal
Frobisher Bay	Below Normal	From 1.5° to 5.0° below Normal
Inuvik	Near Normal	Within 1.2° of Normal

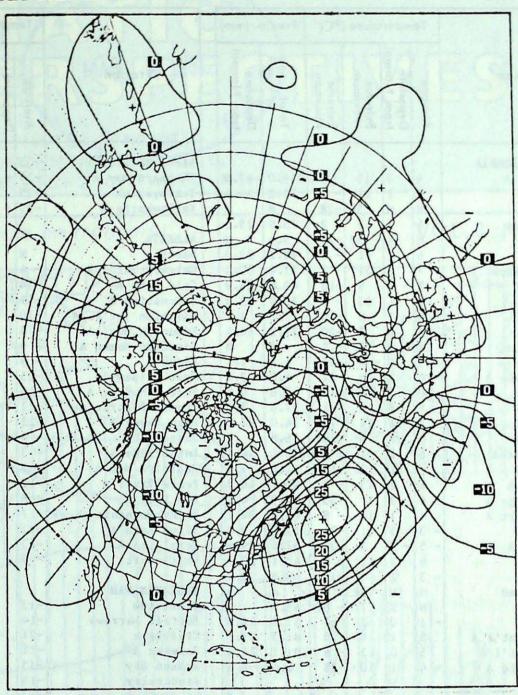
Note: Anomaly denotes departure from the 1949-73 mean.



7-day Mean 50 kPa Height Map(in dam) February 9 to 15, 1981

A significant change occurred in the atmospheric circulation over North America this week. The 50 kPa sterring flow weakened its north-south component becoming mainly westerly. Mild Pacific air pushed eastwards letting 7 day mean temperatures rise to above normal values across the country. In contrast the Arctic is now registering negative temperature anomalies due to the cut off of mild Pacific air. The Arctic air mass is once again stagnent and losing heat at a rapid rate.

Precipitation amounts varied widely across the country. A moist on-shore
flow along the west coast allowed
weather systems to move inland; precipitation amounts in British Columbia
were closer to normal, while the rain
shadow area of the prairies continued
to be dry. After a brief but very cold
Arctic outbreak early in the week mean
tempratures climbed rapidly to reach
normal values once again.



7-day Mean 50 kPa Height Anomaly (in 5 dam intervals) February 9 to 15, 1981

The eastern half of the country significant precipitation received amounts and experienced widely contrasting temperatures. A well developed major winter storm tracked northeastwards from the United States Tuesday and Wednesday. A mixture of snow and rain fell on southern and central Ontario, Québec and part of the Maritimes. Some areas north of Toronto received more than 30 cm of snow. By Tuesday evening it had changed to rain with another 25 mm recorded. In the wake of this inclement weather very cold Arctic air approached from the west and was associated with record high pressure values of more than 105.0 Temperatures dropped creating hazardous icing conditions.

During the latter half of the week mild Pacific air returned encompassing most of Canada. Balmy, above normal record breaking temperatures were reported at many Canadian centres.

	Te	mper	Precip	Precip. (mm)		
Station	Average	Departure from Normal	Extreme Maximum	Extreme Minimum	Total	Departure from Normal
BRITISH COLUMBIA Abbotsford A Alert Bay Blue River Bull Harbour Burns Lake Cape Scott Cape St. James Castlegar A Comox A Cranbrook Dease Lake Estevan Point Fort Nelson A Fort St. John A Kamloops A Langara Lytton Mackenzie A McInnes Island Penticton A Port Hardy A Prince George A Prince Rupert A Quesnel A Revelstoke A Sandspit Smithers A Spring Island Stewart A Terrace A Vancouver Int'l A	4 5 M 6 M 6 7 - 2 5 - 6 - 11 M 6 1 6 4 4 3 - 5 6 3 M M - 1 5 5	3 2 2 1 X 2 1 2 3 1 3 - 3 3 2 M X 0 1	13 5P 11 11 9 13 8 2 10P - 9 6 17 10 11 6 11 13 13 11 10 11 9 10P 7 7	- 9 - 1 -28 - 2 -26P - 1 1 -15 - 7 -30 -20 - 2 -25 -22 -17 - 1 -15 - 28P - 1 -16 - 3 -25 - 9 -24 -21 - 5 -19 2 - 8P -11 - 8 - 6	114.0 70.2 M 70.9 5.6 99.2 57.4 40.0 56.8 7.2 21.2 M 6.4 4.8 5.0 37.6 34.0 16.8 100.4 14.8 90.1 14.9 87.8 12.2 57.4 42.1 9.8 M 65.7 51.8 81.3 101.1	51.7
YUKON Burwash A Dawson A Komakuk Beach A Mayo A Shingle Point A Watson Lake A Whitehorse A	- 4 -21 -29 -28 -27 M -18 -18	- 1 - 5 0 - 6 M	- 3 -15 -15 -16 -17P -10	-39 -42 -39 -42 -39 -27 -34	8.6 6.8 11.5 2.0 7.7 0.4 20.0 15.5	5.2 7.2 1.7 3.4 - 0.4 12.8
NORTHWEST TERRITORIE Alert Baker Lake Broughton Island Byron Bay Cambridge Bay A Cape Dorset Cape Dyer A Cape Hooper Cape Parry A Cape Young A Chesterfield Inlet Clinton Point Clyde Contwoyto Lake Coppermine Coral Harbour Dewar Lakes Ennadai Eureka Fort Reliance Fort Simpson Fort Smith A Frobisher Bay A Gladman Point A Hall Beach A Hay River A Inuvik A Jenny Lind Island Lady Franklin Point Longstaff Bluff Mackar Inlet Mould Bay Nicholson Peninsula Norman Wells A Pelly Bay Pond Inlet Port Burwell Resolute A	-32 -32 -35 -29 M -36 -25 -30 -30 -30 -30 -31 -35 -32 -29 -30 -31 -27 -26 -25 -30 -30 -30 -30 -30 -30 -30 -30	2 - 1 - 6 - M - 1 X - 9 - 5 - 3 M - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-26 -19 -22 -29P -26 -18 -20 -23 -22 -22 -26 -23 -21 -21 -32P -31 -16 -20 -9 -14 -27F -21	-42 -44 -36 -44 -43 -30 -43 -35 -40 -43 M -37 -39 -39 -39 -37 -41 -46 -45 -39 -41 -36 -45 -45 -45 -46 -45 -47 -36 -41 -39 -40 -43 -43 -43 -43 -43 -43 -43 -43 -43 -43	1.3 5.4 0.8 2.2 0.0 3.4 8.0 7.8 2.0 0.0 3.2 6.1 0.7 4.1 0.4 M 0.7 3.6 7.8 4.5 6.1 1.0 2.2 4.3 1.8 0.0 0.0	0.1 4.0 - 3.9 2.1 - 1.2 X -11.2 - 1.6 1.4 - 0.1 1.2 4.3 - 0.6 1.8 - 0.1 M 0.1 1.0 3.2 0.5 0.4 0.4 - 1.4 - 0.6 0.3 - 1.4 - 0.6 1.8 - 0.1 1.0 3.2 0.5 0.4 0.4 - 1.6 0.0 0.1 1.0 0.1 1.0 0.1 1.0 0.0 0

1	ION DATA FOR THE	Ter	nperd	ature (o. (mm)	
	Station	Average	Departure from Normal	Extreme	Extreme Minimum	Total	Departure from Normal	
	Sachs Harbour Shepherd Bay A Tuktoyaktuk Yellowknife A	-35 -39 -29 -31	2	-26 -27 -19 -21	-45 -49 -38 -41		- 0.1 - 0.9 - 0.9 1.2	Si Si Su Th Ti
	ALBERTA Banff Calgary Int'l A Cold Lake A Coronation A Edmonton Int'l. A Edmonton Mun. A Edmonton Namao A Edson A Fort Chipewyan Fort McMurray A Grande Prairie A High Level A Jasper Lethbridge A Medicine Hat A Peace River A Red Deer A Rocky Mountain House Slave Lake A Vermilion A Whitecourt	M - 4 -14 -11 -10 - 8 - 9 -25 -15 -11 -22 - 4 - 3 - 6 -12 - 8 - 7 -11 -13 - 9	1 1 3 2 1 - 4 2	7P 11 7 4 8 10 9 11 - 4 10 8 - 9 8 11 11 6 8 12 10 6 10	-30 -27 -34 -31 -28 -26 -28 -37 -43 -38 -31 -40 -27 -31 -30 -30 -29 -35 -32 -34 -30	4.4 9.0 0.0 0.0 9.6 0.8 0.6	- 4.6 M - 3.8 - 3.0 - 4.4 - 1.5 - 2.4 - 3.8 - 3.2 2.9 - 5.6 - 5.4 - 4.6 2.7 - 4.7 - 5.2 - 2.2 - 2.4	Ma Ma Mc Mc
	SASKATCHEWAN Broadview Buffalo Narrows Cree Lake Estevan A Hudson Bay Kindersley La Ronge A Meadow Lake A Moose Jaw A Nipawin A North Battleford A Prince Albert Regina A Rockglen Saskatoon A Swift Current A Uranium City Wynyard Yorkton A	-13 -14 -21 -11 -15 -11 -17 -16 -10 -17 -15 -17 -13 M -14 -9 -27 -14	3 X 2 2 3 2 2 X 2 X 0 0 0 1 X 1 2 2 4	10 2 8 8 4 9 7 9 6 6 6 7 5 5 P 4 7	-36 -42 -47 -32 -40 -29 -42 -39 -31 -37 -35 -40 -37 -31 -34 -31 -45 -35	0.0 8.6 0.8 0.4 1.2 0.0 1.0 0.6 2.6 0.8 2.0 0.0 M 0.2 0.3 2.7 0.2	3.0 X - 2.8 - 3.1 - 2.5 - 4.7 X - 2.9 X - 4.1 - 2.8 - 3.2 X - 4.4 - 3.1 - 4.4 - 2.9	Name of the second seco
	MANITOBA Bissett Brandon A Churchill A Dauphin A Gillam A Gimli Island Lake Lynn Lake Norway House Pilot Mound Portage la Prairie The Pas A Thompson A Winnipeg	-17 M -26 -14 -23 -16 -20 -22 -21 -15 -18 -25 -15	M 1 2 X X O O X X O O X X O O X S O O O O O O	6 - 4 7 1 8 8 4 3 5 9 7 4	-43 -35P -39 -35 -41 -38 -41 -40 -44 -34 -33 -40 -44 -37	0.5 0.0 3.7 0.5 2.3 0.0 6.0 4.2 1.6 0.0 3.7 2.6	- 5.1 1.5 - 4.6 X - 6.3 X - 3.6 X - 3.6 X - 5.4 - 0.5	S S S T T Y Y P C S S N A A
	ONTARIO Armstrong Atikokan Earlton Geraldton Gore Bay A Kapuskasing Kenora A Kingston Lansdowne London Moosonee Mount Forest Muskoka A North Bay Ottawa Petawawa Pickle Lake Red Lake A	-1; -1; -1; -1; -1; -1; -1; -1; -1; -1;	77 - 11 MM	10 1 71 9 3 4 2 4 0 6 6	-41 -31 -34 -35 -16 -38 -19 -34	2.2 19.5 20.4 0.0 41.4 1.0 42.5	2 - 5.3 4 - 4.7 7.2 7.4 7.4 27.8 6 - 5.5 20.3 7 - 2.8 4 20.7 7.4 11.3 26 - 8.6	

3RUARY 17, 1981									
	Temperature (°C)				Precip. (mm)				
Station'	Average	from Normal	Extreme	Extreme	Total	Departure from Normal			
Simcoe Sioux Lookout A Sudbury A Thunder Bay A Timmins A Toronto Int'l A Trenton A Trout Lake Wawa A Wiarton A Windsor A	M -18 - 9 -16 -12 - 5 - 5 -21 M - 5 - 4	M - 2 4 - 3 4 2 2 1 X 3 0	7 9 8	-15 -42 -30 -37 -33 -18 -16 -43 -37P -18 -19	M 0.4 28.5 3.4 34.5 29.6 26.7 6.4 M 49.7 41.2	M - 8.4 17.9 - 5.3 23.7 13.3 8.8 0.3 X 33.7 25.0			
QUEBEC Bagotville A Baie Comeau Blanc Sablon Border Chibougamau Fort Chimo A Gaspé A Grindstone Island Inoucdjouac Koartak La Grande Rivière A Maniwaki Matagami A Mont-Joli A Montréal (A int.) Natashquan A Nitchecun Port Menier Poste-de-la-Baleine Québec A Rivière du Loup Roberval A Schefferville A Sept-Iles Sherbrooke A Ste-Agathe des Monte Val d'Or A	-10 -10 -11 M -15 -20 - 9 - 6 -24 M -21 - 8 -15 - 6 - 5 -10 -18 M -21 -10 M -19 M -21	5 5 5 7 1 1 1 1 1 2 2 1 3 4 5 4 5 4 5 4 5 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	8 5 -17P 5 1 11 7 - 4 - 9P 2 8 5 12 10 5 2 7 2 9 - 1P 9	-26 -27 -24 -33 -31 -34 -20 -15 -34 -33P -35 -23 -34 -19 -17 -26 -39 -21P -33 -24 -18 -23 -33 -27 -24 -27 -30	48.1 7.2 M 27.7 16.6 17.1 4.5 7.8 M 9.3 52.4 30.9 5.2 9.6 21.1 36.8 7.3 5.9 30.7 M 22.1 16.9	-13.6 - 0.1 8.9 M 5.3 4.7 -21.1 - 9.8 63.8			
NEW BRUNSWICK Charlo A Chatham A Fredericton A Moncton A Saint John A	- 9 - 6 - 6 - 5 - 5	3	14 13 12 12	-22 -18 -25 -17 -17	3.4 20.9 21.4	-18.0 0.9 1.4 - 0.5			
NOVA SCOTIA Eddy Point Greenwood A Sable Island Shearwater A Sydney A Truro Yarmouth A	- 5 - 3 - 1 - 4 - 5 - 4 - 2	1	15 9 10 11 12	-15 -15 - 9 -14 -15 -16 -13	0.0 5.3 8.7 24.6	-19.1 -26.9 -24.6 -18.1			
PRINCE EDWARD ISLAND Charlottetown Summerside	- 5 - 5	2 2	100 100 100	-15 -15		-12.5 -18.2			
NEWFOUNDLAND Argentia VTMS Battle Harbour Bonavista Burgeo Cartwright Churchill Falls A Comfort Cove Daniel's Harbour Deer Lake Gander Int'l A Goose A Hopedale Port aux Basques St. Albans St. Anthony St. John's A St. Lawrence Stephenville A Wabush Lake	- 4 -11 - 5 - 6 M -17 - 7 - 7 - 7 - 14 - 14 - 6 M -10 - 5 - 6 - 6 - 17	XX - 33 - 11 - 11 MM 11 - 11 22 11 00 00 00 11 - 22 MM XX - 12 00 00 00 00 00 00 00 00 00 00 00 00 00	12 5 10 6 10 8 13 15 12 12 12 10 7 4 9 7 14 7 9	-12 -23 -15 -15 -35P -34 -19 -18 -17 -18 -30 -30 -14 -18P -22 -16 -18 -14 -38	0.8 4.4 2.8 14.8 0.6 19.0 13.6 1.7 20.8 8.6 2.0 14.0	-24.2 -24.8 -42.2 -14.2 -1.4 -16.5 -2.8 -11.9 -23.9 -23.9 -23.9 -36.8 -36.0 -36.8 -36.0 -36.3 -17.3			